JVC

LYT2077-001B-M

INSTRUCTIONS
MANUAL DE INSTRUCCIONES

EN **SP**

HD MEMORY CAMERA
VIDEOCÁMARA DE MEMORIA HD
GZ-X900 Ⓤ

Read these INSTRUCTIONS to enjoy your HD MEMORY CAMERA. For more details on the operations, refer to the GUIDEBOOK in the supplied CD-ROM.

Lea este MANUAL DE INSTRUCCIONES para disfrutar de su VIDEOCÁMARA DE MEMORIA HD. Para obtener más información sobre las operaciones, consulte la GUÍA incluida en el CD-ROM suministrado.

Dear Customers
Thank you for purchasing this HD MEMORY CAMERA. Before use, please read the safety information and precautions contained in pages 2 and 3 to ensure safe use of this product.

For Future Reference:
Enter the Model No. (located on the bottom of the HD MEMORY CAMERA) and Serial No. (located on the battery pack mount of the HD MEMORY CAMERA) below.

Model No.

Serial No.

Apreciado cliente
Muchas gracias por haber adquirido esta VIDEOCÁMARA DE MEMORIA HD. Antes de usarla, lea la información de seguridad y las precauciones contenidas en las páginas 2 y 3 para garantizar un uso seguro de este producto.

Para futuras consultas:
Escriba a continuación el número de modelo (situado en la base de la VIDEOCÁMARA DE MEMORIA HD) y el número de serie (situado en el compartimiento de la batería de la VIDEOCÁMARA DE MEMORIA HD).

Número de modelo

Número de serie

SDHC™

DOLBY DIGITAL STEREO CREATOR

HDMI™ HIGH-DEFINITION MULTIMEDIA INTERFACE

AVCHD™

Safety Precautions

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

NOTES:
● The rating plate and safety caution are on the bottom and/or the back of the main unit.
● The serial number plate is on the battery pack mount.
● The rating information and safety caution of the AC adapter are on its upper and lower sides.

Caution on Replaceable lithium battery
The battery used in this device may present a fire or chemical burn hazard if mistreated.
Do not recharge, disassemble, heat above 100°C or incinerate.
Replace battery with Panasonic, Sanyo, Sony or Maxell CR2025.
Danger of explosion or Risk of fire if the battery is incorrectly replaced.
● Dispose of used battery promptly.
● Keep away from children.
● Do not disassemble and do not dispose of in fire.

For USA-California Only
This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material – special handling may apply.
See www.dtsc.ca.gov/hazardouswaste/perchlorate

When the equipment is installed in a cabinet or on a shelf, make sure that it has sufficient space on all sides to allow for ventilation (10 cm (3-15/16") or more on both sides, on top and at the rear).
Do not block the ventilation holes.
(If the ventilation holes are blocked by a newspaper, or cloth etc. the heat may not be able to get out.)
No naked flame sources, such as lighted candles, should be placed on the apparatus.
When discarding batteries, environmental problems must be considered and the local rules or laws governing the disposal of these batteries must be followed strictly.
The apparatus shall not be exposed to dripping or splashing.
Do not use this equipment in a bathroom or places with water.
Also do not place any containers filled with water or liquids (such as cosmetics or medicines, flower vases, potted plants, cups etc.) on top of this unit.
(If water or liquid is allowed to enter this equipment, fire or electric shock may be caused.)

Do not point the lens directly into the sun. This can cause eye injuries, as well as lead to the malfunctioning of internal circuitry. There is also a risk of fire or electric shock.

CAUTION!
The following notes concern possible physical damage to the camera and to the user.
Carrying or holding the camera by the LCD monitor can result in dropping the unit, or in a malfunction.
Do not use a tripod on unsteady or unlevel surfaces. It could tip over, causing serious damage to the camera.

CAUTION!
Connecting cables (Audio/Video, etc.) to the camera and leaving it on top of the TV is not recommended, as tripping on the cables will cause the camera to fall, resulting in damage.

CAUTION:
The mains plug shall remain readily operable.

WARNING:
The battery pack, the camera with battery installed, and the remote control with battery installed should not be exposed to excessive heat such as direct sunshine, fire or the like.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use attachments/ accessories specified by the manufacturer.
11. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

If this symbol is shown, it is only valid in the European Union.

Remember that this camera is intended for private consumer use only.
Any commercial use without proper permission is prohibited. (Even if you record an event such as a show, performance or exhibition for personal enjoyment, it is strongly recommended that you obtain permission beforehand.)

Trademarks
● "AVCHD" and the "AVCHD" logo are trademarks of Panasonic Corporation and Sony Corporation.
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● HDMI is a trademark of HDMI Licensing, LLC.
● Windows® is either registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.
● Macintosh is a registered trademark of Apple Inc.
● We recommend using the Category 2 HDMI cable (High Speed cable) for viewing in higher image quality.
● iTunes, iMovie, iPhoto are trademarks of Apple Inc., registered in the U.S. and other countries.
● YouTube and the YouTube logo are trademarks and/or registered trademarks of YouTube LLC.
● Other product and company names included in this instruction manual are trademarks and/or registered trademarks of their respective holders.
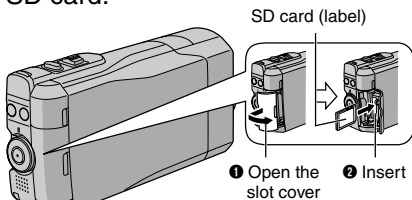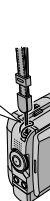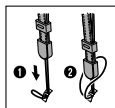
x.v.Color

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

Easy Start Guide

Inserting an SD card

Prepare an SD card
(commercially available).
Turn off the camera and insert an
SD card.

SD card (label)

❶ Open the
slot cover

❷ Insert

■ **Compatible SD/SDHC cards**
($\square$ p. 17)

Grip Adjustment

❶↓ ❷

● Fasten the strap when you grip the camera.
● When carrying the camera, please be
careful not to drop it.

Charge the battery before recording

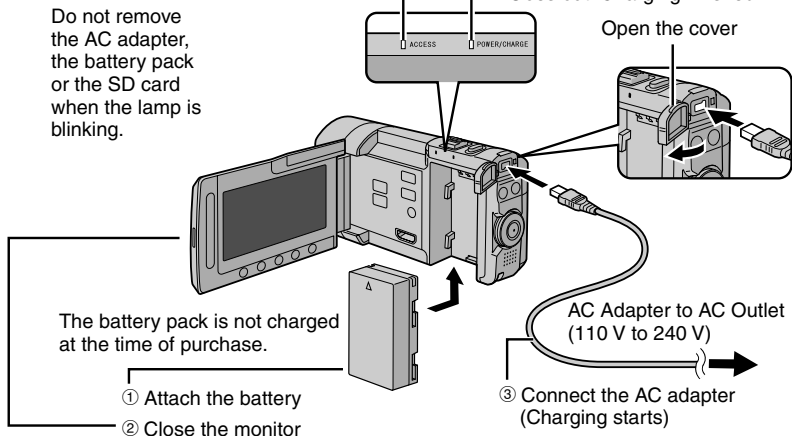Turn off the camera and attach the battery pack.

Access lamp
Blinks: Accessing files

Do not remove
the AC adapter,
the battery pack
or the SD card
when the lamp is
blinking.

Power/charge lamp
Blinks: Charging or quick start-up
Goes out: Charging finished

Open the cover

ACCESS   POWER/CHARGE

The battery pack is not charged
at the time of purchase.

① Attach the battery

② Close the monitor

AC Adapter to AC Outlet
(110 V to 240 V)

③ Connect the AC adapter
(Charging starts)

Before removing the battery pack, be sure to turn off the power by
pressing **DISPLAY/⏻** for 2 seconds or more.

● **Be sure to use JVC battery packs. If you use any other battery packs besides
JVC battery packs, safety and performance can not be guaranteed.**

Date/Time Setting

❶ Open the LCD monitor to turn on the camera

DISPLAY/⏻ button

LCD monitor
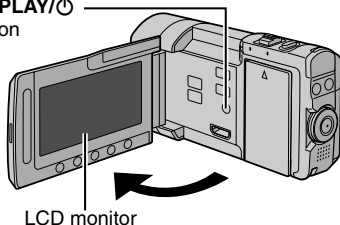
❷ Select [YES] within 10 seconds

Slide your finger up and down on the sensor. Then touch **OK**.
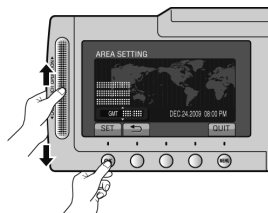
SET DATE/TIME!
YES
NO
SET
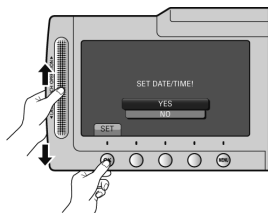
- When the message disappears, press the **DISPLAY/⏻** button for at least 2 seconds to turn off the power, and then press it again for at least 2 seconds.
- Touch the sensors with your finger. The sensors do not function if you touch them with your finger nail or with gloves on.
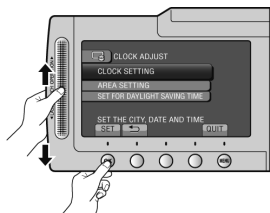
❸ Select [CLOCK SETTING]

CLOCK ADJUST
CLOCK SETTING
AREA SETTING
SET FOR DAYLIGHT SAVING TIME
SET THE CITY, DATE AND TIME
SET ⤺ QUIT

❹ Select the city closest to the area where you use the camera

AREA SETTING
GMT DEC.24.2009 08:00 PM
SET ⤺ QUIT

❺ Select [ON] if daylight saving time is observed

SET FOR DAYLIGHT SAVING TIME
DAYLIGHT SAVING TIME (DST)
OFF
DEC.24.2009 08:00 PM
SET DAYLIGHT SAVING TIME
SET ⤺ QUIT
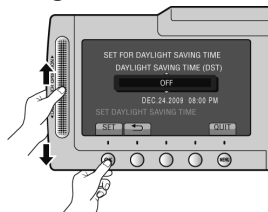
❻ Set the date and time

Touch sensor: Sets the date and time
→: Moves the cursor to the right
OK: Clock starts

CLOCK SETTING
DATE   TIME
DEC 24 2009 4 55 PM
GMT- 3:00
SAVE ⤺ ← → CANCEL
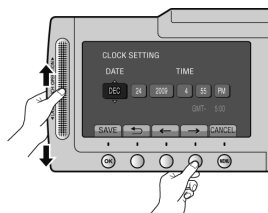
Video recording

CAUTION

Before recording an important scene, it is recommended to conduct a trial recording.
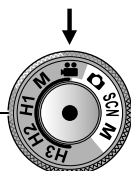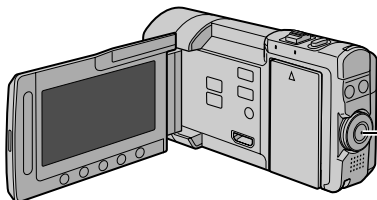
❶ Select recording mode (REC)
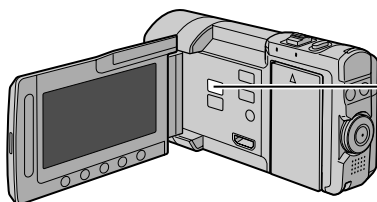
PLAY/REC

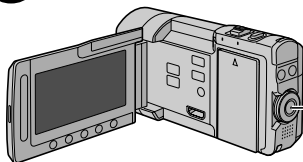The mode changes when you press the button.

Recording Mode Indicator

📹 Ⓐ   🅧🅿 [3 h 36 m]
0 : 04 : 01 ●❚❚

❷ Set the recording dial to 📹 (AUTO) mode

❸ Start recording

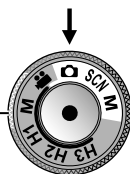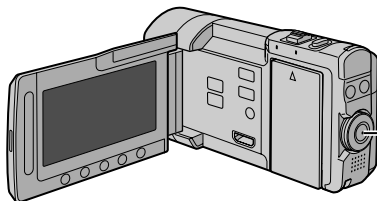Remaining space on the SD card

Video Quality

Record-standby

Press the **START/STOP** button to start recording, and press it again to stop.

🅧🅿 [3 h 36 m]
0 : 04 : 01 ●❚❚

●REC

Recording

Still Image Recording
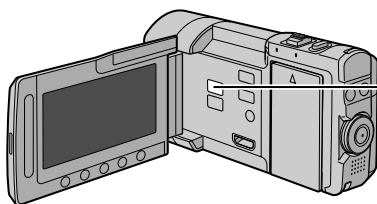
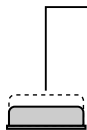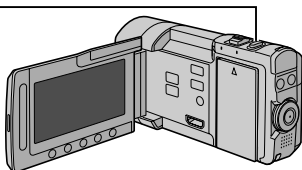**❶ Select recording mode (REC)**

PLAY/REC

The mode changes when you press the button.

❷ Set the recording dial to ○ (AUTO) mode

❸ Set the focus

Press and hold **SNAPSHOT** halfway.

FINE

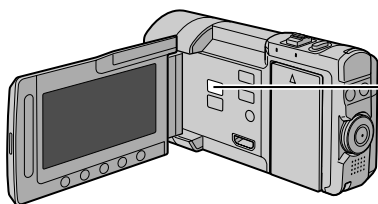The 👤 indicator becomes green when the captured image is focused.

❹ Take a still image

Press **SNAPSHOT** fully to take a still image.

FINE [9999]
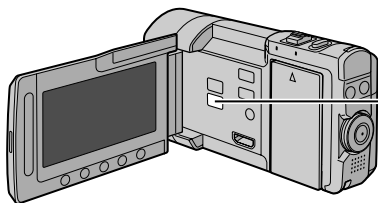PHOTO

Playing back

❶ Select playback mode (PLAY)

PLAY／REC

The mode changes when you press the button.
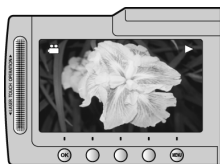
❷ Select video or still image mode

▲▲／📷

The mode changes when you press the button.

❸ Select a file and touch OK

Index screen

VIDEO PLAYBACK   1/2

SD

▶ DIGEST 🔍 ⏏

Playback screen

■ **To perform operations such as forward search or reverse search (☞ p. 23)**
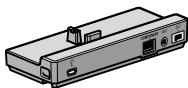■ **To view files on TV (☞ p. 25)**

> **CAUTION**
>
> **Do not forget to make copies after recording!**
> ● To copy files onto discs (☞ p. 28)
> ● To dub files to a VCR/DVD recorder (☞ p. 30)
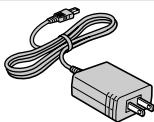> ● To edit files on your computer (☞ p. 31)
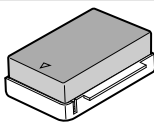
Accessories

CU-VC10

Everio Dock

AP-V21U

AC Adapter

BN-VF908U

Battery Pack

CR2025

Lithium Battery
Pre-installed in the
remote control.

Core Filter
(☞ p. 26)

● **CD-ROM**
● **Hand Strap**
● **USB Cable**
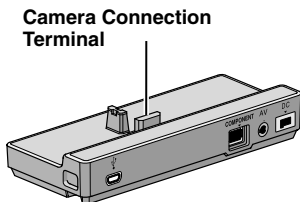● **Remote Control**
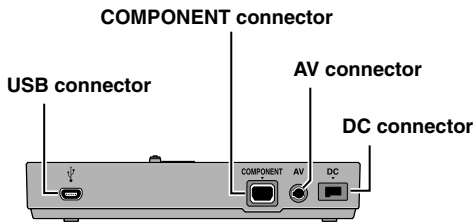 (RM-V751U)

● **Component Cable**
● **AV Cable**

NOTE

Make sure to use the provided cables for
connections.
Do not use any other cables.

Everio Dock

You can connect cables to the connectors of the Everio dock. The connection is completed
when you place the camera on the dock.

COMPONENT connector

**Camera Connection
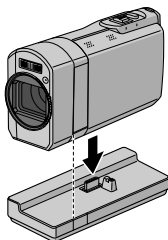Terminal**

USB connector

AV connector

DC connector

NOTE

● **Do not connect the USB cable to both the camera and the Everio dock to
  prevent malfunctions.**
● **Before connecting or removing any external devices and cables, turn off all
  power, including this camera.**
  Turn on the power only when you are done.

Attaching the Camera to the Dock

1 Close the LCD monitor.

**2 Align the camera with the dock as indicated by
the dotted line in the figure below and attach
firmly.**

Contents

How to use the Touch Sensor

After the menu is displayed on the LCD monitor:
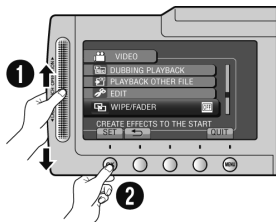
❶ Slide your finger up and down on the sensor.
❷ Select [SET]. (Touch **OK**.)
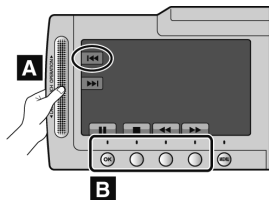
A To select an on-screen button appearing on the left side, touch the portion of the sensor next to the on-screen button.

B To select an on-screen button appearing at the bottom of the screen, touch the buttons underneath them.

Read these INSTRUCTIONS to enjoy your CAMERA.
For more details on the operations, refer to the GUIDEBOOK in the supplied CD-ROM.

In order to view the GUIDEBOOK,
Adobe® Acrobat® Reader™ or Adobe® Reader® must be installed.
Adobe® Reader® can be loaded from Adobe's web site:
http://www.adobe.com/

NOTE

Select your desired language with a single click.
The model name is indicated on the bottom of your camera.

Read This First!

Make a backup of important recorded data
It is recommended to copy your important recorded data to a DVD or other recording media for storage. JVC will not be responsible for any lost data.

Make a trial recording
Before the actual recording of important data, make a trial recording and play back the recorded data to check that the video and sound have been recorded correctly.

Reset the camera if it does not operate correctly
Open the LCD monitor and remove the power supply (battery pack or AC adapter) from the camera, then reattach it.

Precautions on handling batteries
● Be sure to use the JVC BN-VF908U/ VF808U battery packs. This product includes patented and proprietary technology and is made to be used with the JVC battery only. JVC cannot guarantee safety or performance of this product when it is operated by other batteries.
● If the camera is subjected to electrostatic discharge, turn off the power before using it again.

If a malfunction occurs, stop using the camera immediately and contact www.jvc.com or by phone at 1-800-252-5722
● Recorded data may be erased while the camera is being repaired or inspected. Back up all data before requesting repairs or inspections.

Because cameras may be used for demonstration in a shop, the demonstration mode is set to on by default
To deactivate the demonstration mode, set [DEMO MODE] to [OFF].

Index
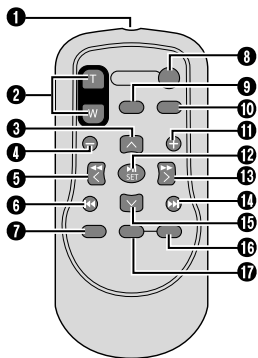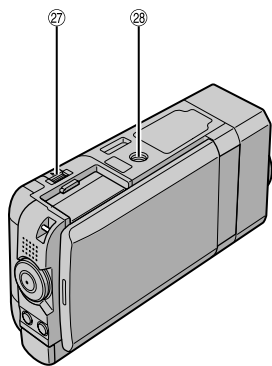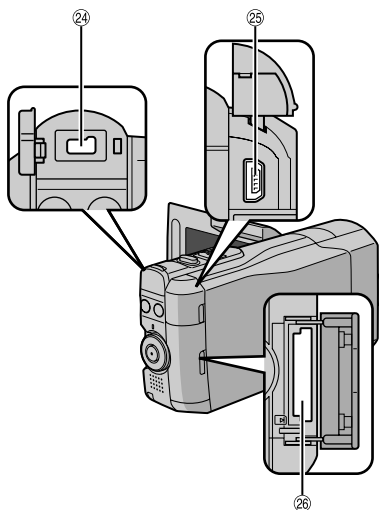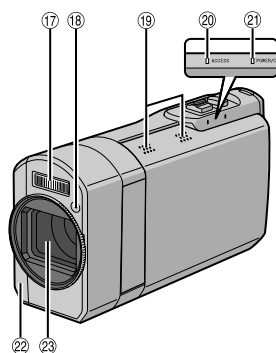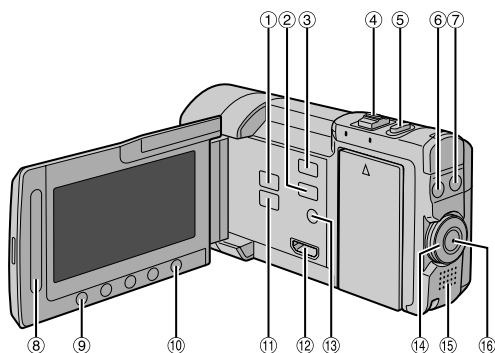
- Be careful not to cover ⑰, ⑱, ㉒ and ㉓ during shooting.
- The LCD monitor can rotate 270°.

180°

90°
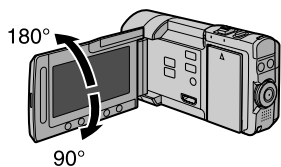
Camera

① **PLAY/REC** Button (☞ p. 18, 19, 23, 24)
② **EXPORT** Button (☞ p. 36)
③ **UPLOAD** Button (☞ p. 37)
④ Zoom Lever (☞ p. 20)
  Speaker Volume Control (☞ p. 23)
⑤ **SNAPSHOT** (📷) Button (☞ p. 19)
⑥ **INFO** (i) Button (☞ p. 20)
⑦ **FLASH** (⚡) Button (☞ p. 20)
⑧ Touch Sensor

⑨ **OK** Button
⑩ **MENU** Button
⑪ 🎥 / 📷 Button (☞ p. 23, 24)

⑫ HDMI Mini Connector (☞ p. 25)
⑬ **DISPLAY/⏻** (Power) Button (☞ p. 13)
⑭ Recording dial (☞ p. 18, 19, 21, 22)
⑮ Speaker
⑯ **START/STOP** Button (☞ p. 18)

⑰ Flash
⑱ Flash Sensor
⑲ Stereo Microphone*
⑳ Access lamp (☞ p. 4)

㉑ Power/charge lamp (☞ p. 4)
㉒ Remote Sensor (☞ p. 15)
㉓ Lens
㉔ DC Connector

㉕ USB Connector (☞ p. 28, 32)
㉖ SD Card Slot (☞ p. 4)
㉗ **BATT.** (Battery Release) Button (☞ p. 16)
㉘ Tripod Mounting Socket (☞ p. 13)

*Do not touch or cover the microphone during recording.

NOTE

The **DISPLAY/⏻** button is used to turn the power ON/OFF as well as to switch the indications on the screen.
To switch the indications, press and release the button. To turn the power ON/OFF, press and hold (2 seconds or more) the button.

Remote Control

❶ Infrared Beam Transmitting Window
❷ **ZOOM (T/W)** Buttons (Zoom in/out)
❸ **UP** Button
❹ **SKIP BACKWARD** Button

❺ **LEFT** Button
❻ **BACK** Button
❼ **PLAYLIST** Button
❽ **START/STOP** Button

❾ **S.SHOT** (Snapshot) Button
❿ **INFO** Button
⓫ **SKIP FORWARD** Button
⓬ **PLAY/PAUSE/SET** Button

⓭ **RIGHT** Button
⓮ **NEXT** Button
⓯ **DOWN** Button
⓰ **INDEX** Button*
⓱ **DISP** Button

---

* Each time you press **INDEX**, the screen switches as shown below:

🎥 mode:
Index Screen ↔ Group Index Screen
📷 mode:
Index Screen ↔ Date Index Screen

Tripod Mounting

Align the camera stud hole with the tripod stud, and the mounting socket with the screw, and then rotate the camera clockwise to mount it to the tripod.
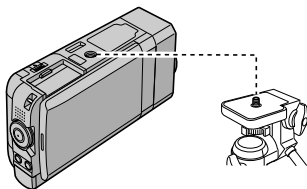
NOTE

● Do not use a tripod on unsteady or unlevel surfaces. It could tip over, causing serious damage to the camera.
● Use a tripod that does not have a locking pin.
● The LCD monitor may scratch against the tripod in some cases. When this occurs, tilt the LCD monitor slightly before closing.

Indications on LCD Monitor

GETTING STARTED

During both Video and Still Image Recording
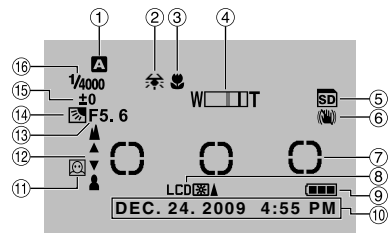
① Selected Recording Mode Indicator
   (☞ p. 21)
   Ⓐ: Auto Mode
   Ⓜ: Manual Mode
② White Balance Indicator
③ Macro Mode Indicator
④ Zoom Indicator (☞ p. 20)
⑤ SD card Indicator*
⑥ OIS Indicator (Appears when [OIS] is set to [OFF].)
⑦ Photometry Area
⑧ Monitor Backlight Indicator
⑨ Battery Indicator
⑩ Date/Time (☞ p. 16)
⑪ Face Detection Indicator (☞ p. 18, 19)
⑫ Manual Focus Adjustment Indicator
⑬ Aperture Value (F-number)
⑭ ⬛: Backlight Compensation Indicator
   ⬛: Face Detection Mode Indicator
   (☞ p. 18, 19)
⑮ Brightness Control Indicator
   ⬛: Photometry Area Control Indicator
⑯ Shutter Speed

*Blinks when an SD card is not inserted.

During Video Recording Only
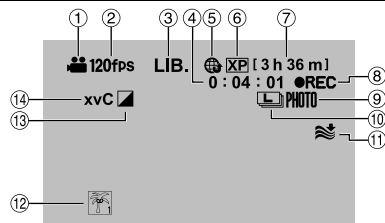
① Mode Indicator
② High Speed Recording Indicator (☞ p. 22)
③ Export Mode Indicator (☞ p. 36)
④ Counter
⑤ Upload Mode Indicator (☞ p. 37)
⑥ Video Quality
⑦ Remaining Time (☞ p. 18)
⑧ ● REC: (Appears during recording.)
   ● ❙❙ : (Appears during record-standby mode.)
⑨ Shooting Indicator(☞ p. 18)
⑩ Continuous Shooting Indicator (☞ p. 21)
⑪ Wind Cut Indicator
⑫ Event Indicator
⑬ Effect Mode Indicator
⑭ x.v.Color™

During Still Image Recording Only
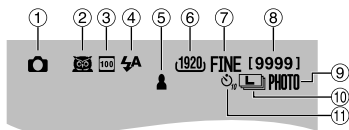
① Mode Indicator
② Scene Select Indicator (☞ p. 22)
③ ISO Sensitivity Indicator
   (When set to [AUTO], there is no indication.)
④ Flash Indicator (☞ p. 20)
⑤ Focus Indicator (☞ p. 19)
⑥ Image Size
⑦ Image Quality: FINE (fine) or STD (standard)
⑧ Remaining Number of Shots
⑨ Shooting Indicator (☞ p. 19)
⑩ Continuous Shooting Indicator
⑪ Self-Timer Indicator

During Video Playback
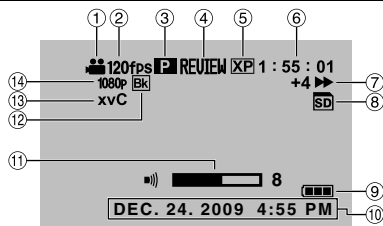
① Mode Indicator
② High Speed Recording Indicator
③ Playlist Playback Indicator
(Appears when playing back a playlist.)
④ Quick Review Indicator (☞ p. 18)
⑤ Video Quality
⑥ Counter
⑦ Playback Mode

- ▶ : Playback
- ‖ : Pause
- ▶▶ : Forward Search
- ◀◀ : Reverse Search
- ‖▶ : Forward Slow-Motion
- ◀‖ : Reverse Slow-Motion
(The number on the left shows speed.)

⑧ Recording Medium Indicator
⑨ Battery Indicator
⑩ Date/Time (☞ p. 16)
⑪ Volume Level Indicator
⑫ Wipe/Fader Effect Indicator
⑬ x.v.Color™
⑭ Output with 1080p

During Still Image Playback
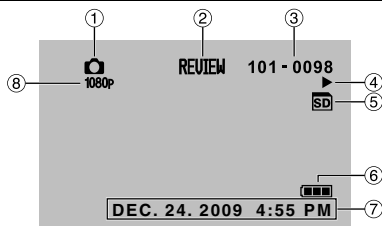
① Mode Indicator
② Quick Review Indicator (☞ p. 19)
③ Folder/File Number
④ Slide Show Playback Indicator
⑤ Recording Medium Indicator
⑥ Battery Indicator
⑦ Date/Time (☞ p. 16)
⑧ Output with 1080p

Switching indication modes on LCD monitor
Each time you touch **DISPLAY/⏻**, indications on LCD monitor switch as shown below:

In recording mode:
All indications/Indications for selected functions
In playback mode:
All indications/Only date and time/No indications

Preparing the Remote Control

A battery is included inside the remote control at the time of purchase.
Remove the insulation sheet before use.

Beam Effective Area

Remote Sensor

Effective distance:
Within 5 m (16.4 ft)
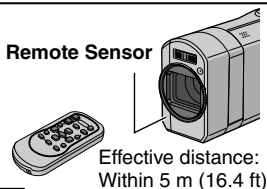
NOTE

The transmitted beam may not be effective or may cause incorrect operation when the remote sensor is directly exposed to sunlight or powerful lighting.

To Reinsert the Battery

Pull out the battery holder by pressing the lock tab.

Lock Tab

Lithium Battery (CR2025)
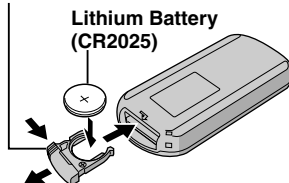
Necessary Settings before Use

Charging the Battery Pack

Attach the battery pack.(☞ p. 4)
- You can also connect the AC adapter using the Everio dock connector. (☞ p. 9)
- The power/charge lamp blinks to indicate charging has started.
- When the lamp goes out, charging is finished.
- Unplug the AC adapter from the AC outlet and disconnect the AC adapter from the camera.

■ **To check the remaining battery power**
See page 20.

■ **To detach the battery pack**
Open the LCD monitor and turn off the camera using the **DISPLAY/**⏻ button before detaching the battery pack.
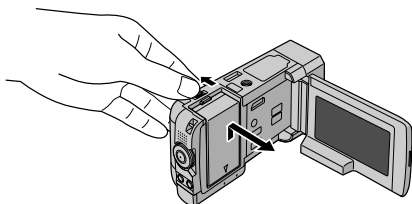
NOTE
- You can also use the camera with just the AC adapter. (☞ p. 4)
- Please do not pull or bend the AC adapter plug and cable. This may damage the AC adapter.

Date/Time Setting

1 Open the LCD monitor to turn on the camera.

2 Touch MENU.

3 Select [DISPLAY SETTINGS].

| VIDEO |
| x.v.Color |
| WIND CUT |
| GRID |
| DISPLAY SETTINGS > |
CONFIGURE ON-SCREEN DISPLAY
SET ↩ QUIT

4 Select [CLOCK ADJUST].

DISPLAY SETTINGS
LANGUAGE
CLOCK ADJUST
DATE DISPLAY STYLE
MONITOR BRIGHT
SET DATE AND TIME
SET ↩ QUIT

5 Select [CLOCK SETTING].

CLOCK ADJUST
CLOCK SETTING
AREA SETTING
SET FOR DAYLIGHT SAVING TIME
SET THE CITY, DATE AND TIME
SET ↩ QUIT
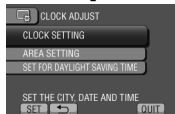
6 Select the city closest to the area where you use the camera.

Selected area is highlighted

Principal city of the selected area

Time difference to GMT

AREA SETTING
GMT DEC.24.2009 04:55 PM
SET ↩ QUIT

7 Select [ON] if daylight saving time is observed.

SET FOR DAYLIGHT SAVING TIME
DAYLIGHT SAVING TIME (DST)
OFF
DEC.24.2009 04:55 PM
SET DAYLIGHT SAVING TIME
SET ↩ QUIT
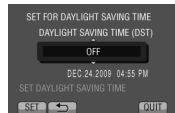
8 Set the date and time.
Change the setting by using the touch sensor and select [→] to set.

CLOCK SETTING
DATE TIME
DEC 24 2009 4 55 PM
GMT- 5:00
SAVE ↩ ← → CANCEL

9 Select [SAVE].
To reset the setting, select [CANCEL].

Setting the clock to local time when traveling

After performing steps 1-4 (☞ p. 16)

5 Select [AREA SETTING].

CLOCK ADJUST
CLOCK SETTING
AREA SETTING
SET FOR DAYLIGHT SAVING TIME
SET WHEN IN ANOTHER COUNTRY
SET ⤺ QUIT
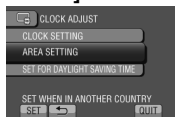
6 Select the city closest to the area you are traveling.

AREA SETTING
GMT DEC.24.2009 04:55 PM
SET ⤺ QUIT
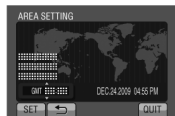
■ **To return to the previous screen**
Select ⤺.

■ **To quit the screen**
Select [QUIT].

Language Setting

The language on the display can be changed.

1 Open the LCD monitor to turn on the camera.

2 Touch MENU.

3 Select [DISPLAY SETTINGS].

VIDEO
x.v.Color
WIND CUT
GRID
DISPLAY SETTINGS >
CONFIGURE ON-SCREEN DISPLAY
SET ⤺ QUIT

4 Select [LANGUAGE].

DISPLAY SETTINGS
LANGUAGE
CLOCK ADJUST
DATE DISPLAY STYLE
MONITOR BRIGHT
ON-SCREEN DISPLAY LANGUAGE
SET ⤺ QUIT

5 Select the desired language.

■ **To return to the previous screen**
Select ⤺.

■ **To quit the screen**
Select [QUIT].

Using an SD Card

- Operations are confirmed on the SD cards from the following manufacturers.
  - Panasonic
  - TOSHIBA
  - SanDisk
  - ATP
  Video recording:
  Class 4 or higher compatible SDHC card (4 GB to 32 GB)
- For UXP mode, use Class 6 or higher.
  Still image recording:
  SD card (256 MB to 2 GB) or SDHC card (4 GB to 32 GB)
- If other media are used, they may fail to record data correctly, or they may lose data that had already been recorded.
- MultiMediaCards are not supported.
- Video data may not be recorded onto the SD cards on which video data have already been recorded using the devices from other manufacturers.
- Inserting an SD card (☞ p. 4)

■ **To remove an SD card**
Push the SD card once.
After the card comes out a little, pull it out.

NOTE

- Insert and remove the SD card only while the power is turned off. Otherwise, data on the card may be corrupted.
- Do not touch the terminal on the reverse side of the label.

Format an SD card when using it for the first time
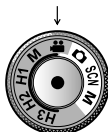
Select [FORMAT SD CARD] to format the card.

BASIC SETTINGS
QUICK RESTART ON
REMOTE ON
AUTO FINALIZE ON
FORMAT SD CARD
ERASE ALL DATA ON
SET ⤺ QUIT
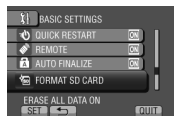
Recording Files

Video Recording

1 **Press PLAY/REC to select the recording mode.**

PLAY/REC

The lens cover opens automatically.

2 **Set the recording dial to 🎥 mode.**

XP [3 h 36 m]
0 : 00 : 00 ●II
SD

3 **Press START/STOP to start recording.**

XP [3 h 36 m]
0 : 00 : 01 ●REC
SD

Approximate remaining time for recording

You can also start/stop recording by selecting [REC] on the LCD monitor. (On-screen recording control)

■ **To stop recording**
Press **START/STOP** again.

■ **To view the last recorded scene**
Select ⏏ while recording is paused.
Selecting 🗑 during playback deletes that scene.

■ **To record a still image during video recording**
Press **SNAPSHOT**.

■ **Continuous shooting may be performed by switching the shutter mode.**

■ **To change the video quality**
Change the settings in [VIDEO QUALITY].

■ **To perform high speed recording**
Select from H1 to H3 on the recording dial.
(☞ p. 22)

■ **To turn on the face detection mode**
Select 😊.

NOTE
- The video recording mode is automatically selected when you turn off the camera and then turn on again.
- If [AUTO POWER OFF] in the menu is set to [ON], the camera turns itself off automatically to conserve power when it is not operated for 5 minutes while running on battery.
- After recording video for 12 consecutive hours, recording stops automatically.
- A new file will be created for every 4 GB of continuous shooting.
- If the LCD monitor is turned upside down, 😊 is not displayed. Change the setting when the LCD monitor is in the normal position.

18 EN

Still Image Recording

1 **Press PLAY/REC to select the recording mode.**

PLAY/REC

The lens cover opens automatically.

2 **Set the recording dial to ◻ mode.**

FINE [9999]

3 **Press and hold SNAPSHOT halfway.**

FINE

The 👤 indicator becomes green when the captured image is focused.

4 **Press SNAPSHOT fully to take a still image.**

FINE [9999]
PHOTO

■ **To view the last recorded image**
Select ⬅ after shooting.
Selecting 🗑 during playback deletes that image.

■ **To change the image quality**
Change the settings in [IMAGE QUALITY].

■ **To change the image size**
Change the settings in [IMAGE SIZE].

■ **To record still images continuously**
Set to [CONTINUOUS SHOOTING] in [SHUTTER MODE].

■ **To turn on the face detection mode**
Select 📷.

NOTE
- If [AUTO POWER OFF] in the menu is set to [ON], the camera turns itself off automatically to conserve power when it is not operated for 5 minutes while running on battery.
- The sides of still images recorded in 16:9 size may be cut off when printed. Check whether 16:9 size prints can be printed at your local print store.
- If the LCD monitor is turned upside down, 📷 is not displayed. Change the setting when the LCD monitor is in the normal position.

Recording Files (Continued)

Zooming

Preparation:
● Select the recording mode.
● Select 📹 or 📷 mode.

Zoom out   **Zoom in**

W: Wide angle   **T**: Telephoto

You can also zoom out/zoom in by selecting [W] or [T] on the LCD monitor. (On-screen zoom control)

Zoom ratio (factory-preset)

📹 mode	📷 mode
[8X/DYNAMIC]	[5X/OPTICAL]

■ **To change the maximum zoom ratio (📹 mode only)**
   Change the settings in [ZOOM].

Flash

Preparation:
● Select the recording mode.
● Select 📷 or M mode.

1 Press FLASH.

2 Select the desired setting.

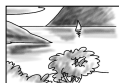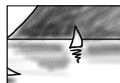| ⊘	Disables this function.
4A	The flash fires automatically.
4A⊚	The flash fires automatically but reduces the red-eye phenomenon of the subject's eyes.
4	The flash fires regardless of the shooting condition.
4S	The flash fires. The shutter speed becomes slower, so the background can also be brightened.

■ **The flash is set to 4A (auto) by default.**

■ **When Scene Select (☞ p. 22) is selected, the flash is automatically set to auto and fires automatically according to the Scene Select setting**
■ **Recommended shooting distance**
   Within 2 m (6.6 ft).

NOTE

The flash does not work during CONTINUOUS SHOOTING and BRACKETING.

Checking the Remaining Battery Power

📹 mode:
Press INFO twice or INFO and then select ⚏.

📷 mode:
Press INFO.

■ **To quit the screen**
   Select [QUIT] or press **INFO**.

NOTE

The recordable time display should only be used as a guide. It is displayed in 10 minute units.

Checking the Remaining Space on the Recording Media

Preparation:
● Select the recording mode.
● Select 📹 mode.

Press INFO.

The maximum recording time is displayed for each video quality mode.

■ **To change the video quality**
   1) Select the video quality.
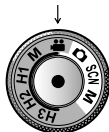   2) Select [SET].

■ **To quit the screen**
   Select [QUIT].

Capturing Still Images in a Movie

You can capture still images while recording a video.

Preparation:
- Select the recording mode.

1 Set the recording dial to ▶️ mode.

2 Touch the shutter mode and select RECORD ONE SHOT or CONTINUOUS SHOOTING.
- RECORD ONE SHOT: Records one still image.
  (There will be no indicator display on the LCD monitor when recording one image.)
- ▣ CONTINUOUS SHOOTING: Records still images continuously.
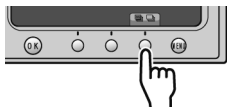
RECORD ONE SHOT

After performing steps 1-2

3 Press SNAPSHOT.

CONTINUOUS SHOOTING

After performing steps 1-2

3 Select the continuous shooting mode from the menu.
- Select from HIGH SPEED / MEDIUM SPEED / LOW SPEED.

4 Press and hold SNAPSHOT.
- Recording ends when **SNAPSHOT** is released.
- At this time, **SNAPSHOT** will not work until the writing to the media is completed.

■ **The photo indicator lights up immediately on the LCD monitor when SNAPSHOT is pressed.**

NOTE
- Recording cannot be performed when the menu is displayed.
  Close the menu.
- Functions that are only available in still image mode cannot be used.
  (Example: flash, GAIN, etc.)
- The number of recordable still images depends on the remaining space on the recording media.
- The size of recorded still images is 3072 x 1728, regardless of the image size that is set.
- The still images recorded in the video mode contains a little more noise than the still images recorded in the still image mode.
- Simultaneous recording (still image recording) may be performed even when the dial is set to [M].

Manual Recording

Manual recording mode enables you to set the focus and screen brightness, etc. manually.

Changing to Manual Recording Mode

Preparation:
- Select the recording mode.

Set the recording dial to manual video 🅜 or manual still image 🅜.

manual video

manual still image

■ **To return to the auto recording mode**
  Set the recording dial to ▶️ or ▣.

Manual Recording (Continued)

Manual Setting in Menu

Preparation:
● Select the manual recording mode.

1 Touch MENU.

2 Select [MANUAL SETTING].

```
      🎬  VIDEO
  📹  MANUAL SETTING        >
  📅  REGISTER EVENT
  🎞  VIDEO QUALITY         HD
  🔍  ZOOM                  A
      USE DETAIL SETTINGS BASED
      SET  ↩                QUIT
```

3 Select the desired menu.

```
      🎬  VIDEO
  ◎  FOCUS                  A
  👤  FOCUS ASSIST
  ☀  ADJUST BRIGHTNESS     A
  🔆  SHUTTER SPEED         A
      THE BRIGHTNESS OF THE
      SET  ↩                QUIT
```

4 Select the desired setting.

```
      🎬  VIDEO
  ●  A  AUTO
     M  MANUAL

      SET  ↩                QUIT
```

Depending on the kind of settings you select, you can set the value by using the touch sensor.

■ **To return to the previous screen**
Select ↩.

■ **To quit the screen**
Select [QUIT].

High Speed Recording

You can record high speed videos.
Preparation:
● Select the recording mode.

1 Turn the recording dial and set to the mode (H1-H3) that best suits the subject to be recorded.

Mode	H1	H2	H3
Recording speed (Frame rate)	120 fps	300 fps	600 fps
Recording time (sec)	4	4	2.4
Playback time	2 times of the recording time	5 times of the recording time	10 times of the recording time

2 Press START/STOP to start recording.
● Recording ends when the button is pressed again or when the time limit is up.

NOTE
● Sound cannot be recorded.
● Only optical zoom is available.
● The higher the speed, the smaller the image size and the grainier the image becomes.
● The recorded object appears dark.
Choose a sufficiently bright object especially for H3.

Scene Select

Adjusts the exposure and shutter speed to suit your surroundings or the subject.

Preparation:
● Select the recording mode.

1 Turn the recording dial and set to SCN.
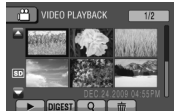
2 Select [SCN].

```
  🏠 M 🎥

      SCN     📷🎬
```

3 Select the desired scene.

Playing Back Files

Video Playback

1 Press PLAY/REC to select the playback mode.

PLAY/REC

2 Press ▲ / �‍▢ and set to ▲ mode.

▲ / ▢

VIDEO PLAYBACK 1/2

SD

DEC.24.2009 04.55PM

► DIGEST 🔍 🗑

The index screen appears.
The lens cover closes automatically.

3 Select the desired file.

■ **The ▲ / ▢ button is used for switching between video and still image in the playback mode. It does not work in the recording mode.**

■ **To move to the previous or next page**
Touch [▲] or [▼] for over a second.

■ **To play back a few seconds from the beginning of each video**
Touch [DIGEST].
● For digest playback, parts of the video other than the beginning may be played back in some cases.
● Or, some videos may not be played back at all.

■ **To delete a video**
Select 🗑 when playback is stopped.

■ **To change the number of thumbnails**
(6 thumbnails/12 thumbnails)
Move the zoom lever to [W] or [T].

■ **To zoom in the video during pause (remote control only)**
Press **T** on the remote control.
● Press ∧, ∨, ‹, › on the remote control to move the zoom area.
● Press and hold **W** on the remote control to cancel zoom in.

■ **Operations during Video Playback
On-screen buttons**
|◄◄ : Return to the first scene of the file
►►| : Go to the first scene of the next file
■ : Return to the index screen
◄◄ : Reverse search (during playback)
◄| : Frame-by-frame playback in reverse direction (during pause)*
► : Playback
|| : Pause
►► : Forward search (during playback)
|► : Frame-by-frame playback in forward direction (during pause)*
* Slow playback starts when you keep touching the sensor button under ◄| / |► for a while.

■ **Speaker volume**

— : Turn down the volume

W   T

＋ : Turn up the volume

Playing Back Files (Continued)

RECORDING/PLAYBACK

Still Image Playback

1 **Press PLAY/REC to select the playback mode.**
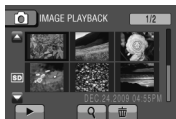
PLAY/REC

2 **Press 🎥 / 📷 and set to 📷 mode.**

🎥 / 📷

📷 IMAGE PLAYBACK 1/2

The index screen appears.
The lens cover closes automatically.

3 **Select the desired file.**

■ **The 🎥 / 📷 button is used for switching between video and still image in the playback mode. It does not work in the recording mode.**
■ **To move to the previous or next page**
Touch [▲] or [▼] for over a second.
■ **To delete a still image**
Select 🗑.
■ **To change the number of thumbnails**
(6 thumbnails/12 thumbnails)
Move the zoom lever to [W].

■ **To zoom in the image during playback (remote control only)**
Press **T** on the remote control.
● Press ∧, ∨, 〈, 〉 on the remote control to move the zoom area.
● Press and hold **W** on the remote control to cancel zoom in.

■ **Operations during Still Image Playback On-screen buttons**

◄ : Change playback order of slide show in reverse direction
► : Change playback order of slide show in forward direction
■ : Return to the index screen
|◄◄ : Display the previous file
► : Start the slide show
■■ : End the slide show
►►| : Display the next file
↰ : Rotate 90 degrees counterclockwise (during playback)
↳ : Rotate 90 degrees clockwise (during playback)

Viewing Files on TV

This camera is designed to be used with high-definition or NTSC-type color television signals. It cannot be used with a television of a different standard.

Connection with TV

You can output videos from the HDMI connector, COMPONENT connector, or AV connector. Select the connector that best suits your television.

Preparation:
Turn off all units.

■ To connect using the HDMI mini connector

We recommend using the Category 2 HDMI cable (High Speed cable).

DC Connector

HDMI Mini Connector

AC Adapter

HDMI Cable (optional)
(Mini to full-sized HDMI cable)

To AC Outlet
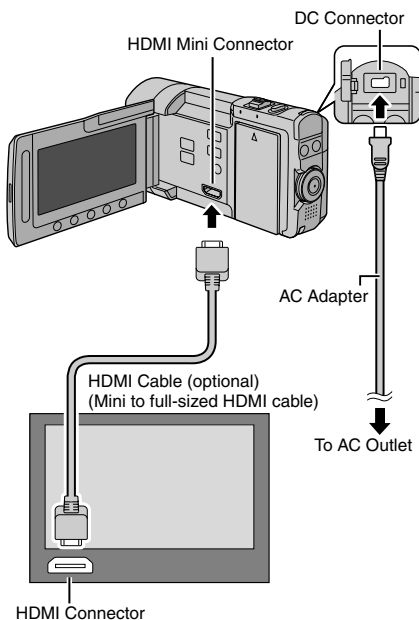
HDMI Connector

NOTE

● When connecting to the HDMI cable, the image or sound may not appear on the TV properly depending on the TV connected. In such cases, perform the following operations.
  1) Disconnect the HDMI cable and connect it again.
  2) Turn off and on the camera again.

■ To connect using the COMPONENT connector

COMPONENT Connector

AV Connector

DC Connector

Component Cable

AC Adapter

AV Cable

To AC Outlet

Video Connector is not in use.

COMPONENT Input Connector

Audio L/R Input Connector
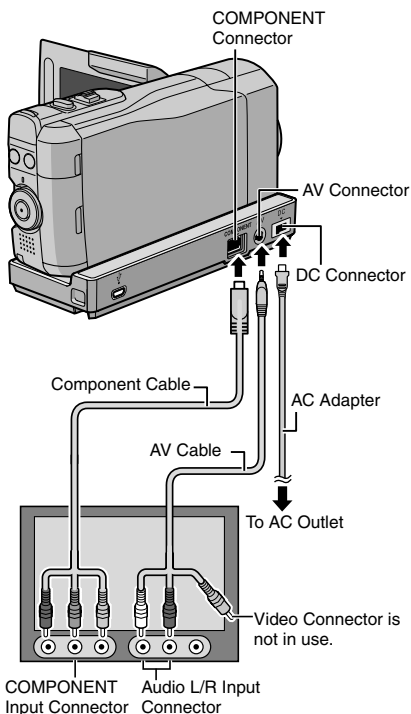
NOTE

Change the settings in [COMPONENT OUTPUT] according to the connection.

Viewing Files on TV (Continued)

■ To connect using the AV connector

AV Connector

DC Connector

AC Adapter

AV Cable

To AC Outlet

AV Input Connector

NOTE
Change the settings in [VIDEO OUTPUT] to suit the screen size of your television.
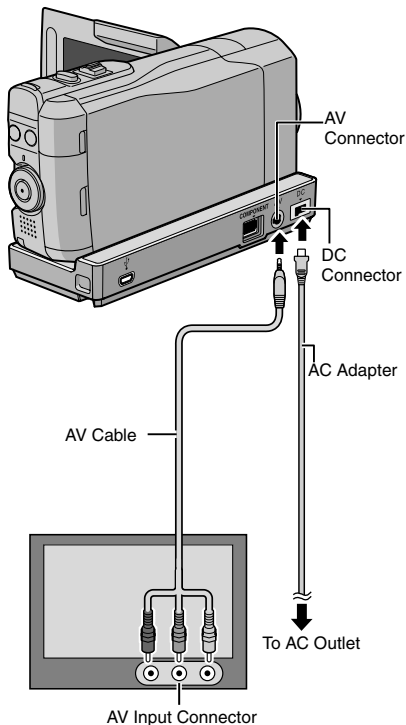
Playback Operation

After the connection with TV is completed

1 **Turn on the camera and the TV.**

2 **Set the TV to its VIDEO mode.**

3 (Only when connecting the camera to the VCR/DVD recorder)
Turn on the VCR/DVD recorder, and set the VCR/DVD recorder to its AUX input mode.

4 **Start playback on the camera. (☞ p. 23, 24)**

■ To display camera's on-screen display on TV
Set [DISPLAY ON TV] to [ON].

NOTE
When the video was recorded with x.v.Color™ set to [ON], change the x.v.Color™ setting on TV. For details, refer to the TV's instruction manual.

Attaching the Core Filter to the DC cord

The core filter reduces interference. Connect the end of the cable with the core filter to the camera.

Release the stopper.   **3 cm (1-3/16")**   **Wind twice**
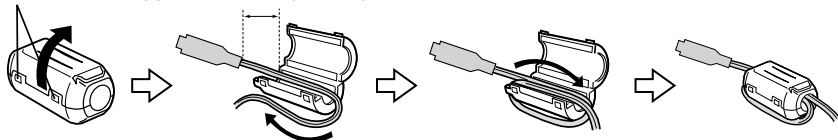
Managing Files

CAUTION

Do not remove the recording medium or perform any other operation (such as turning off the power) while accessing files. Also, be sure to use the provided AC adapter, as the data on the recording medium may be corrupted if the battery becomes exhausted during operation. If the data on the recording medium becomes corrupted, format the recording medium to use the medium again.

Capturing a Still Image from a Video

You can capture the desired scene from a recorded video, and store it as a still image.

Preparation:
● Select the playback mode.
● Select 🎥 mode.

Press SNAPSHOT when playback is paused.
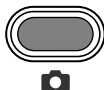
NOTE

● Captured still images are stored at a resolution of 1920 x 1080.
● The continuous shooting function cannot be used to capture images.
● You cannot capture video during playback.

Deleting Files

● Protected files cannot be deleted. To delete them, release the protection first.
● Once files are deleted, they cannot be restored. Check files before deleting.

Preparation:
● Select the playback mode.
● Select 🎥 or 📷 mode.

1 Touch MENU.

2 Select [DELETE].

| VIDEO |
| DELETE |
| UPLOAD SETTINGS |
| SEARCH |
| PLAYBACK PLAYLIST |
| DELETE RECORDED VIDEO |
| SET | QUIT |
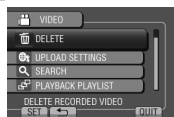
Deleting the Currently Displayed File

After performing steps 1-2

3 Select [CURRENT].

| VIDEO DELETE |
| CURRENT |
| FILE SELECT |
| DELETE ALL |
| DELETE ONE SCENE AT A TIME |
| SET | QUIT |

4 Select [YES].

| DELETE? |
| (REMAINING SCENES:0009) |
| YES |
| NO |
| SET | ← | → | QUIT |

You can select the previous or next file by selecting ← or →.

■ **To quit the screen**
Select [QUIT].

Copying Files

Types of Copying and Connectable Device

The Camera
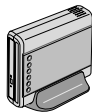
DVD Burner CU-VD50/CU-VD3
You can copy files recorded on this camera onto discs.
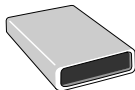
BD Burner LaCie Model No. 301828
You can copy files recorded on this camera onto discs.

USB External Hard Disk Drive
You can copy files recorded on this camera onto a USB external hard disk drive.

PC
You can copy files from the camera to a disc using a PC.

VCR/DVD Recorder
You can dub video recorded on this camera onto VCR/DVD recorder.

NOTE

● Recommended USB external hard disk drive

| Seagate | FreeAgent™ Desk series |
| LaCie | Design by Neil Poulton series |

● USB external hard disk drive with the capacity over 2 TB cannot be used.

Using a BD/DVD Burner

The files in the camera can be backed up to a disc using a BD/DVD burner.
● Use one of the following methods to view the disc. (If you try to play back the disc with incompatible player, the disc may not be ejected.)
- Playback the disc using the camera.
- Playback the disc using a BD/DVD burner.*
- Playback on a PC.*
- Playback the disc using a BD/DVD player that supports BD-MV and AVCHD.*
* The DVD must first be finalized on the camera.
● Other than the created BD/DVD using a BD/DVD burner cannot be played.
● When connecting a DVD burner (CU-VD50) to a TV, you can play back the created disc without using the camera. When playing back disconnect the USB cable.
● The created Blu-ray discs are not guaranteed to be playable on all BD players or recorders.

Connection with a BD/DVD Burner

Preparation:
Turn on the camera first, then turn on the BD/DVD burner.

DC Connector
USB Connector
Open the cover
AC Adapter
To AC Outlet
USB Cable
BD/DVD Burner
USB Connector
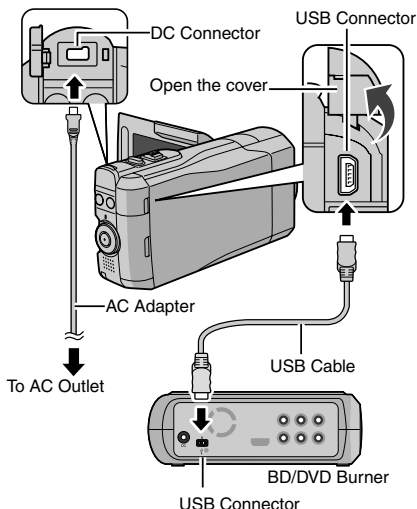
● You can also connect the cables using the Everio dock connectors.

NOTE

● Refer also to the optional BD/DVD burner's instruction manual.
● When connecting to a DVD burner, use the USB cable that came with the DVD burner.
● When connecting to a BD burner, use a USB cable with Mini-A(Male) to B(Male) connectors. JVC's QAM0852-001 (optional) is recommended. Refer to page 35 for details.

Backup All Files

Preparation:
● Select 🎥 or 📷 mode.
● Connect the camera to the BD/DVD burner.
● When using a BD burner, select [CHANGE REC. MEDIA] and select the disc type.

1 Select [CREATE FROM ALL] (🎥 mode) or [SAVE ALL] (📷 mode).

VIDEO BACKUP
CREATE FROM ALL
SELECT AND CREATE
PLAYBACK
FINALIZE
TO AUTOMATICALLY SAVE
SET

2 Select the desired menu.

CREATE FROM ALL
ALL SCENES
UNSAVED SCENES

SAVE ALL VIDEOS
SET
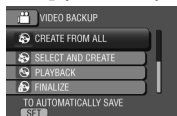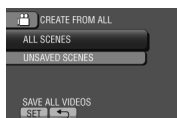
● 🎥 mode: **[ALL SCENES]**
  📷 mode: **[ALL IMAGES]**
  All files in the recording medium are copied.
● 🎥 mode: **[UNSAVED SCENES]**
  📷 mode: **[UNSAVED IMAGES]**
  Files that have never been copied are automatically selected and copied.

3 Select [EXECUTE].

ALL SCENES
QUANTITY REQUIRED
DVD : 3 / DVD(DL) : 2
PREPARE AN EMPTY DISC
EXECUTE
RETURN
SET   QUIT

4 Select [YES] or [NO].

● [YES]: Displays the thumbnails by group.
● [NO]: Displays the thumbnails by date or by playlist.

5 Select [EXECUTE].

● The files are copied on the disc. When [COMPLETED] appears, touch **OK**.
● When [INSERT NEXT DISC PRESS [STOP] TO EXIT CREATE] appears, change the disc. Remaining files are copied on the second disc.
● To cancel copying, select [STOP].

■ **To switch between video and still image playback after connecting to a burner, press the 🎥 / 📷 button.**

COPYING

Copying Files (Continued)

Dubbing Files to a VCR/DVD Recorder

Preparation:
● Create a playlist.
● Turn off all units.

■ **To connect using the AV connectors (analog dubbing)**

AV Connector

DC Connector

AC Adapter

AV Cable

VCR/DVD Recorder

AV Connector
(Input)

To AC Outlet
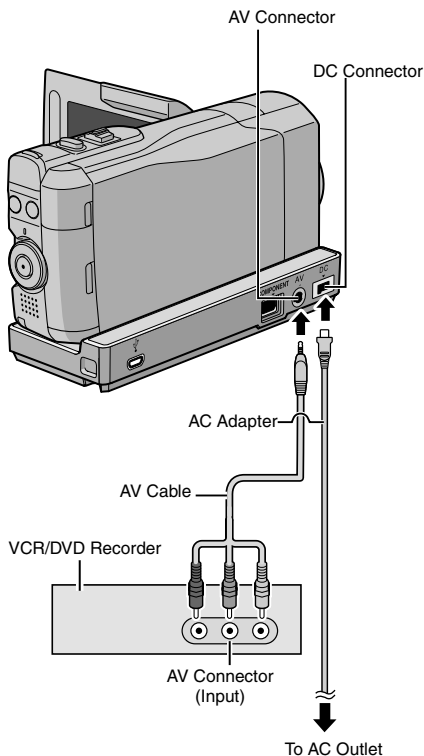
● When other devices such as a DVD burner are connected to the Everio dock, turn the power of these devices off.

1 **Open the LCD monitor to turn on the camera.**

2 **Set the VCR/DVD recorder to its AUX input mode.**
Check that the images from the camera are input correctly to the VCR/DVD recorder.

3 **Play back playlists on the camera.**
1) Touch **MENU**.
2) Select [DUBBING PLAYBACK].
3) Select the desired playlist.
4) Select [YES]. (A black screen is displayed for 5 seconds at the first and the last scene.)

4 **At the point you want to start dubbing, start recording on the VCR/ DVD recorder.**
Refer to the VCR/DVD recorder's instruction manual.

■ **To stop dubbing**
Stop recording on the VCR/DVD recorder.

■ **To hide the date or icons on the screen**
Change the settings in [DISPLAY ON TV].

Switching indication modes on LCD monitor
Each time you touch **DISPLAY**, indications on LCD monitor switch as shown below:

In recording mode:
All indications/Indications for selected functions
In playback mode:
All indications/Only date and time/No indications

Creating a Disc using a PC

You can copy the data from the camera and create a disc using a PC.

❶   **Installing the software to the PC**

System Requirements

Windows Vista

OS:	Windows Vista® Home Basic (SP1) Home Premium (SP1) (32-bit, pre-installed)
CPU:	Intel® Core™ Duo, 1.66 GHz or higher (Intel® Core™ 2 Duo 2.13 GHz or higher recommended.)
RAM:	At least 2 GB

Windows XP

OS:	Windows® XP Home Edition (SP2/SP3) Professional (SP2/SP3) (pre-installed)
CPU:	Intel® Core™ Duo, 1.66 GHz or higher (Intel® Core™ 2 Duo 2.13 GHz or higher recommended.)
RAM:	At least 1 GB

■ **To check the PC specification**
Right-click on [Computer] (or [My Computer]) in the [Start] menu and select [Properties].

NOTE

● Make sure your PC has a recordable BD/DVD drive.
● If your system does not meet the requirements, it is recommended to copy files using the BD/DVD burner. (☞ p. 28)
● Macintosh users may use the software included with their Macintosh (iMovie '08/09, iPhoto) to import files to their computer.

Preparation:
Load the provided CD-ROM into the PC.
In Windows Vista, the auto play dialog box appears.

1   Click [Easy Installation].

Follow the on-screen instructions.

2   Click [Next].

3   Click [Finish].
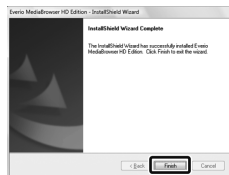
Everio MediaBrowser icons are created on the desktop.

Everio MediaBrowser Player is a software that plays AVCHD discs on the PC.
(DVD discs cannot be played.)

■ **To see the Instruction Guide for Everio MediaBrowser**
1) Double-click the icon of Everio MediaBrowser.
2) Click [Help], and click [MediaBrowser Help].

Click   Click

PC OPERATION

EN 31

Creating a Disc using a PC (Continued)

❷ **Making Backup on the PC**

Preparation:
- Install the software to the PC.
- Make sure that enough free space is left in the PC's HDD.
- Close the LCD monitor to turn off the camera.

Open the cover   USB Connector

USB Cable

USB Connector
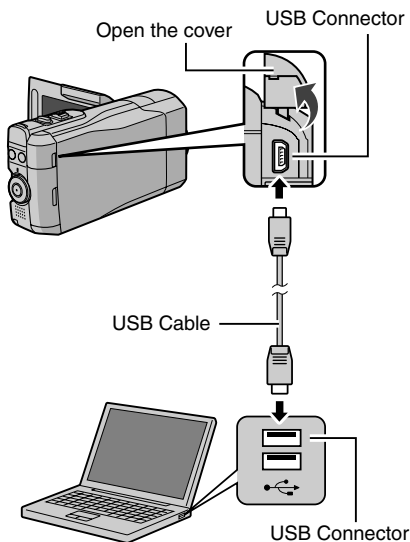
1 **Open the LCD monitor to turn on the camera.**

2 **Select [BACK UP].**
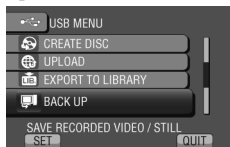
Everio MediaBrowser starts on the PC.
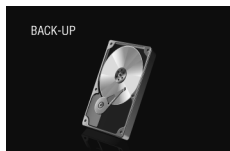
3 **Click [All volume in camcorder] and click [Next].**

4 **Click [Start].**
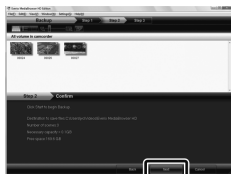
Backup starts.

■ **To disconnect the camera from the PC**
1) Right-click the icon (Safely Remove Hardware) on the task bar and select [Safely remove USB Mass Storage Device].
2) Follow the on-screen instructions and make sure that the device can be safely removed.
3) Disconnect the USB cable and close the LCD monitor.

NOTE

It takes time to back up many videos.

You can make a user list of a certain subject (such as Travel, Athletic meet) and put the files related to the subject into the user list.

Preparation:
Make backup on the PC.

1 **Double-click the icon to open the calendar.**

2 **Select [Movies only].**

3 **Click [+].**

4 **Input the name of the new user list and click [OK].**
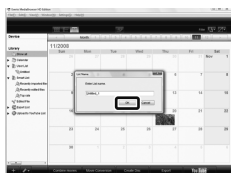
5 **Click the recording date.**

The files recorded on the day are displayed.

6 **Drag the file and drop into the user list.**

To add other files into the user list, repeat steps **5** and **6**.

PC OPERATION

Creating a Disc using a PC (Continued)

❻ Copying Files to a disc

Everio MediaBrowser supports 3 disc formats. Select the one that suits your purpose.

DVD-Video disc:	Suitable if you will give the disc to your friends and relatives.
AVCHD disc:	Suitable for high quality video.
BD:	Suitable for high quality video with long recording time.

1 Select the user list and click [Create Disc].

2 Select the disc type and click [Next].

3 Click [Select files individually] and click [Next].

To add all the files onto discs, click [Select all files displayed], then go to step **5**.

4 Drag the file, and drop into the part at the bottom and click [Next].

5 Input the disc name, select the top menu style and click [Next].

6 Click [Start].

NOTE

- When copying video recorded in UXP recording mode to create an AVCHD disc, the video needs to be converted to XP recording mode before copying. Therefore, it may take longer time than copying video recorded in other modes.
- Use Everio MediaBrowser Player to playback the disc. Refer to the help of the provided Everio MediaBrowser software to operate.
- For detail on operating Everio MediaBrowser, click [Help] and refer to [MediaBrowser Help].
- Adobe® Reader® must be installed to read [MediaBrowser Help]. Adobe® Reader® can be loaded from Adobe's web site: http://www.adobe.com
- For assistance in operating the provided software, refer to the support information. (☞ p. 35)

PC OPERATION

Folder Structure and Extensions

EVERIO_SD   **X = number**

```
├─[DCIM] ◄──────────────────── Contains the still image folders.
│    └─[XXXJVCSO]
│         ⋮
│
├─[EXTMOV] ◄────────────────── Video files with defective management information
│    │                          are saved.
│    ├─[DEM_XXXX.MTS]
│    └─[MOV_XXXX.MTS]
│
└─[PRIVATE]
     ├─[JVC] ◄───────────────── Contains management information files of event
     └─[AVCHD]                   and/or disc creation information for the files taken
          └─[BDMV]               with the camera.
               ├─[STREAM]
               │    └─[XXXXX.MTS] ◄──── Video file in AVCHD format
               │         ⋮
               ├─[BACKUP]
               ├─[CLIPINF]
               ├─[PLAYLIST]
               ├─[INDEX.BDM]
               └─[MOVIEOBJ.BDM]
```

Customer Support Information

Use of this software is authorized according to the terms of the software license.

JVC

When contacting the nearest JVC office or agency in your country (refer to the JVC Worldwide Service Network at http://www.jvc-victor.co.jp/english/worldmap/index-e.html) about this software, please have the following information ready.
● Product Name, Model, Problem, Error Message
● PC (Manufacturer, Model (Desktop/Laptop), CPU, OS, Memory (MB), Available Hard Disk Space (GB))

Please note that it may take some time to respond to your questions, depending on their subject matter.
JVC cannot answer questions regarding basic operation of your PC, or questions regarding specifications or performance of the OS, other applications or drivers.

Pixela

Region	Language	Phone #
USA and Canada	English	+1-800-458-4029 (toll-free)
Europe (UK, Germany, France, and Spain)	English/German/French/Spanish	+800-1532-4865 (toll-free)
Other Countries in Europe	English/German/French/Spanish/Italian/Dutch	+44-1489-564-764
Asia (Philippines)	English	+63-2-438-0090
China	Chinese	10800-163-0014 (toll-free)

Homepage: http://www.pixela.co.jp/oem/jvc/mediabrowser/e/
Please check our website for latest information and downloading.

Using with a Portable Media Player

Turning on the Export Mode

You can easily transfer videos recorded in export mode to iTunes®. All the files with the export setting turned on are transferred to PC. For details on transferring, refer to the operation guide of MediaBrowser in the CD-ROM.

Preparation:
● Select the recording mode.
● Select 🎥 mode.

Press EXPORT twice.

EXPORT

EXPORT TO LIBRARY MODE

● When the export mode is set on, the [LIB.] indicator lights up on the LCD monitor.

LIB.

■ To turn off the export mode
Press **EXPORT** twice.

Changing the Export Setting

You can set the recorded videos to the export setting.

Preparation:
● Select the playback mode.
● Select 🎥 mode.

1 Press EXPORT.

EXPORT

2 Select the file and set [LIB.].

To check the content of the file, select [CHECK].

3 Select [DONE].

■ To cancel the export setting
Select the file and select [LIB.] again.

■ To quit the screen
1) Select [DONE].
2) Select [YES].

■ To confirm the export setting
Press **EXPORT** on the index screen.

Transferring the Files to PC

Preparation:
Install iTunes® on a PC.
http://www.apple.com/itunes/

1 Connect the camera to the PC with the USB cable.

2 Select [EXPORT TO LIBRARY].
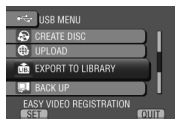
All the files with the export setting turned on are transferred to PC.

■ If you cannot export the file to iTunes®
Refer to "Q&A", "Latest Information", "Download Information", etc. in [Click for Latest Product Info] in the help of the provided Everio MediaBrowser software.

Uploading Files to Websites

You Tube™

Turning on the Upload Mode

You can upload the file to video sharing websites (YouTube™) quickly after recording.

Preparation:
- Select the recording mode.
- Select 🎥 mode.

Press UPLOAD twice.

UPLOAD	ON UPLOAD REC

If you record a file with the upload mode set on, the recording stops automatically 10 minutes after the recording is started. The remaining time is displayed on the LCD monitor.

- When the upload mode is set on, the ⊕ indicator lights up on the LCD monitor.

NOTE

The upload mode turns off each time recording is finished.

Uploading Files

For details on uploading files, refer to the operation guide of MediaBrowser in the CD-ROM.

1 Connect the camera to the PC with the USB cable.

2 Select [UPLOAD].

> USB MENU
> PLAYBACK ON PC
> CREATE DISC
> UPLOAD
> EXPORT TO LIBRARY
> EASY UPLOAD TO VIDEO
> SET / QUIT

■ **If you cannot upload the file to YouTube™**
- You need your YouTube™ account to upload files to YouTube™. Create your account.
- Refer to "Q&A", "Latest Information", "Download Information", etc. in [Click for Latest Product Info] in the help of the provided Everio MediaBrowser software.

Changing the Menu Settings

E.g.) Set [OIS] to [ON] or [OFF].

1 Touch MENU.

2 Select the desired menu.

> VIDEO
> REGISTER EVENT
> VIDEO QUALITY
> ZOOM
> OIS
> IMAGE BLURRED NEED TO
> SET / QUIT
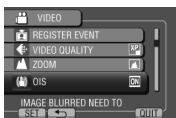
3 Select the desired setting.
For details on each menu, see below.

> VIDEO
> OFF
> ON
> SET / QUIT

■ **To return to the previous screen**
Select ↰.

■ **To quit the screen**
Select [QUIT].

NOTE

Depending on the operation mode, some menu settings may be fixed and are unavailable for selection. In this case, it will be displayed in gray.

Troubleshooting

Before requesting service, consult the following chart. If the solutions indicated in the chart do not solve the problem, consult your nearest JVC dealer or JVC service center for instructions.
Refer also to the FAQ of new products on JVC's website.

The following phenomena are not malfunctions.
- The camera heats up when it is used for a long time.
- The battery heats up during charging.
- When playing back a video, the image stops momentarily or the sound is interrupted at junctions between scenes.
- LCD monitor momentarily become red or black when sunlight is recorded.
- Black spots, or red, green, or blue spots appear on the LCD monitor. (The LCD monitor contains 99.99 % effective pixels, but 0.01 % of fewer pixels may be ineffective.)

<table>
<tr><th colspan="2">Trouble</th><th>Action</th></tr>
<tr><td>Card</td><td>Cannot insert the SD card.</td><td>● Check that the SD card is facing the right direction.</td></tr>
<tr><td>Power</td><td>No power is supplied.</td><td>● Connect the AC adapter correctly.
● Recharge the battery pack.</td></tr>
<tr><td rowspan="2">Display</td><td>The remaining battery display is not correct.</td><td>● Fully charge the battery pack, run it down, and then recharge it again.
● If the camera is used for long periods of time in high or low temperatures, or if the battery pack is repeatedly charged, the amount of remaining battery may not be displayed correctly.</td></tr>
<tr><td>The LCD monitor is difficult to see.</td><td>● The LCD monitor may be difficult to see if used in bright areas such as under direct sunlight.</td></tr>
<tr><td rowspan="2">Recording</td><td>Recording cannot be performed.</td><td>● SD card is full. Delete unnecessary files or replace the SD card.</td></tr>
<tr><td>Vertical lines appear on recorded images.</td><td>● Such a phenomenon occurs when shooting a subject illuminated by bright light. This is not a malfunction.</td></tr>
<tr><td rowspan="2">Playback</td><td>Cannot find a recorded video.</td><td>● Select [PLAYBACK OTHER FILE] then search the video on the index screen.
(Video files that have damaged management information can be played back.)
● Cancel group display and date search functions.</td></tr>
<tr><td>The same image is displayed for a long time during video playback, or motion is choppy.</td><td>● Replace the SD card. (When the SD card terminal is damaged, difficulty in reading the data occurs.)
● Format the SD card.</td></tr>
<tr><td rowspan="2">Other problems</td><td>The camera operates slowly when switching between video mode and still image mode, or when switching the power on or off.</td><td>● If there are many files (such as video) in the SD card, it takes time for the camera to respond. It is recommended that you copy all files from the SD card onto your computer, and erase the files from the SD card.</td></tr>
<tr><td>The lamp does not flash during battery pack charging.</td><td>● Check the remaining battery pack charge.
(When the battery pack is fully charged, the lamp does not flash.)
● When recharging in either a hot or cold environment, ensure that battery is being charged within the permitted temperature range.
(If the battery pack is being recharged outside the permitted temperature range, recharging may stop to protect the battery pack.)</td></tr>
</table>

FURTHER INFORMATION

	Trouble	Action
Other problems	**Something appears to be shaking at the lens.**	● When OIS is turned on, shaking may be observed at the lens. This is not a malfunction.
	The SD card cannot be removed from the camera.	● Push the SD card in a few more times.
	Cannot upload the file to YouTube™	● You need your YouTube™ account to upload files to YouTube™. Create your account. ● Refer to "Q&A", "Latest Information", "Download Information", etc. in [Click for Latest Product Info] in the help of the provided Everio MediaBrowser software.
	Cannot export the file to iTunes®	● Refer to "Q&A", "Latest Information", "Download Information", etc. in [Click for Latest Product Info] in the help of the provided Everio MediaBrowser software.

■ **To reset the camera when it does not operate normally**
① Open the LCD monitor and turn off the camera using the POWER/DISP button before detaching the battery pack.
② And remove the power supply (battery pack or AC adapter) from the camera, then reattach it.
③ Execute [FACTORY PRESET].

Warning Indications

Indication	Action
SET DATE/TIME!	● Set the clock. After that, charge the internal battery for more than 24 hours by connecting to the AC adapter. If the message still appears, consult your nearest JVC dealer.
COMMUNICATING ERROR	● Be sure to use JVC battery packs. (Files recorded with other devices that support AVCHD cannot be played back on this camera.)
CANNOT USE IN VIDEO MODE	● Replace the SD card. (Files recorded with other devices that support AVCHD cannot be played back on this camera.)
NOT FORMATTED	● Select [OK] and select [YES] to perform formatting.
FORMAT ERROR!	● Check the operating procedure, and perform once again.
DATA DELETION ERROR	● Turn off the camera, and turn it on again.
MEMORY CARD ERROR!	● Perform formatting. (All data is deleted.) ● Remove and re-insert the SD card. (MultiMediaCard cannot be used.) ● Remove any dirt from the SD card terminals. ● Insert the SD card before switching the power on. ● Turn off the camera, and turn it on again.
RECORDING FAILURE	● Remove and re-insert the SD card. (MultiMediaCard cannot be used.) ● Remove any dirt from the SD card terminals.
PLAYBACK FAILED	● Insert the SD card before switching the power on.
THIS CARD CANNOT BE USED FOR RECORDING OR EDITING ON THIS CAMERA	● When you attempt to perform editing on the inserted SD card that has been used for recording on cameras from other manufacturers.

Specifications

■ General

Power supply
DC 11 V (Using AC adapter)
DC 7.2 V (Using battery pack)

Power consumption
Approx. 3.7 W*
* When the monitor backlight is set to [STANDARD] mode.
Rated Current Consumption: 1 A

Dimensions (W x H x D)
37 mm x 66 mm x 124 mm
(1-1/2" x 2-5/8" x 4-15/16")

Weight
Approx. 246 g (0.6 lbs)
Approx. 298 g (0.7 lbs) (incl. battery pack)

Operating temperature
0°C to 40°C (32°F to 104°F)

Storage temperature
–20°C to 50°C (–4°F to 122°F)

Operating humidity
35 % to 80 %

■ Camera/LCD monitor

Pickup
10,290,000 pixels (gross)
1/2.33" progressive CMOS

Lens
F 3.4 to 5.6, f = 6.7 mm to 33.5 mm, 5:1 power zoom lens

LCD monitor
2.8" diagonally measured,
LCD panel/TFT active matrix system

Flash
Within 2 m (6.6 ft)
(recommended shooting distance)

■ Connectors

AV output
Video output: 1.0 V (p-p), 75 Ω
Audio output: 300 mV (rms), 1 kΩ

HDMI
HDMI™ (V.1.3 with x.v.Color™)

Component output
Y, Pb, Pr component output
Y: 1.0 V (p-p), 75 Ω
Pb/Pr: 700 mV (p-p), 75 Ω

USB
Mini USB type A and type B,
USB 2.0 compliant

■ AC Adapter

Power requirement
AC 110 V to 240 V∿, 50 Hz/60 Hz

Output
DC 11 V ⎓ , 1 A

■ Remote Control

Power supply
DC 3 V

Battery life
Approx. 1 year
(depending on the frequency of use)

Operating distance
Within 5 m (16.4 ft)

Operating temperature
0°C to 40°C (32°F to 104°F)

Dimensions (W x H x D)
42 mm x 14.5 mm x 91 mm
(1-11/16" x 5/8" x 3-5/8")

Weight
Approx. 30 g (0.07 lbs)
(incl. battery)

■ Still image

Format
JPEG

Image size

4:3mode:	3456 x 2592 / 3072 x 2304 / 2592 x 1944 / 1600 x 1200 / 640 x 480
16:9mode:	3456 x 1944 / 3072 x 1728 / 2592 x 1456 / 1920 x 1080 / 1280 x 720

Image quality
FINE / STANDARD

■ Video

Signal format
1080/60i

Recording/Playback format

Video:	MPEG-4 AVC/H.264
Audio:	Dolby Digital (2ch)

Resolution
1920x1080

Recording mode (video)

UXP:	VBR,	24 Mbps
XP:	VBR,	17 Mbps
SP:	VBR,	12 Mbps
EP:	VBR,	5 Mbps

Recording mode (audio)
48 kHz, 256 kbps

Design and specifications subject to change without notice.

FURTHER INFORMATION

Approximate recordable time (for video)

Recording medium / Quality	SD Card			
	4 GB	8 GB	16 GB	32 GB
UXP	20 m	40 m	1 h 20 m	2 h 40 m
XP	30 m	1 h 00 m	2 h 00 m	4 h 00 m
SP	44 m	1 h 28 m	2 h 56 m	5 h 52 m
EP	1 h 50 m	3 h 40 m	7 h 20 m	14 h 40 m

h: hour/m: minute

Required charging/recording time (approx.)

Battery pack	Charging time	Recording time
BN-VF908U (Provided) / BN-VF808U	1 h 50 m	1 h 15 m*

* When the monitor backlight is set to [STANDARD] mode.

Approximate number of images (for still image)

	Recording medium / Image size/Quality	SD Card						
		512 MB	1 GB	2 GB	4 GB	8 GB	16 GB	32 GB
16:9	3456 x 1944 / FINE	160	320	640	1270	2570	5180	9999
	3456 x 1944 / STANDARD	250	500	1030	2030	4090	8260	9999
	3072 x 1728 / FINE	200	400	820	1620	3260	6590	9999
	3072 x 1728 / STANDARD	320	640	1290	2550	5140	9999	9999
	2592 x 1456 / FINE	280	570	1150	2260	4560	9200	9999
	2592 x 1456 / STANDARD	440	890	1790	3530	7100	9999	9999
	1920 x 1080 / FINE	510	1030	2100	4140	8330	9999	9999
	1920 x 1080 / STANDARD	810	1620	3210	6310	9999	9999	9999
	1280 x 720 / FINE	1190	2400	4690	9230	9999	9999	9999
	1280 x 720 / STANDARD	1760	3530	6780	9999	9999	9999	9999
4:3	3456 x 2592 / FINE	120	240	480	960	1930	3900	7810
	3456 x 2592 / STANDARD	190	380	770	1510	3050	6170	9999
	3072 x 2304 / FINE	150	300	610	1210	2440	4920	9860
	3072 x 2304 / STANDARD	240	480	980	1930	3890	7860	9999
	2592 x 1944 / FINE	210	420	870	1710	3450	6960	9999
	2592 x 1944 / STANDARD	340	680	1380	2720	5490	9999	9999
	1600 x 1200 / FINE	550	1110	2260	4440	8950	9999	9999
	1600 x 1200 / STANDARD	880	1760	3590	7060	9999	9999	9999
	640 x 480 / FINE	3330	6670	9999	9999	9999	9999	9999
	640 x 480 / STANDARD	5990	9999	9999	9999	9999	9999	9999

The recordable time and the number of still images are approximate and may differ depending on the recording environment, the condition of the SD card, or the remaining battery power.

FURTHER INFORMATION

Cautions

AC Adapter

**When using the AC adapter in areas other than the USA**
The provided AC adapter features automatic voltage selection in the AC range from 110 V to 240 V.
USING HOUSEHOLD AC PLUG ADAPTER
In case of connecting the unit's power cord to an AC wall outlet other than American National Standard C73 series type use an AC plug adapter, called a "Siemens Plug", as shown.
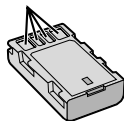For this AC plug adapter, consult your nearest JVC dealer.

Plug Adapter
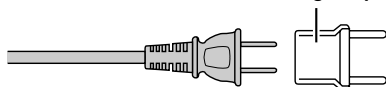
Battery Pack

The supplied battery pack is a lithium-ion battery. Before using the supplied battery pack or an optional battery pack, be sure to read the following cautions:

Terminals

- **To avoid hazards**
  ... **do not** burn.
  ... **do not** short-circuit the terminals. Keep it away from metallic objects when not in use. When transporting, make sure the provided battery cap is attached to the battery. If the battery cap is misplaced, carry the battery in a plastic bag.
  ... **do not** modify or disassemble.
  ... **do not** expose the battery to temperatures exceeding 60°C (140°F), as this may cause the battery to overheat, explode or catch fire.
  ... use only specified chargers.
- **To prevent damage and prolong service life**
  ... do not subject to unnecessary shock.
  ... charge within the temperature range of 10°C to 35°C (50°F to 95°F). Cooler temperatures require longer charging time, or in some cases stop charging at all.
  Warmer temperatures prevent complete charging, or in some cases stop charging at all.
  ... store in a cool, dry place. Extended exposure to high temperatures will increase natural discharge and shorten service life.
  ... fully charge and then fully discharge the battery every 6 months when storing the battery pack over a long period of time.
  ... remove from charger or powered unit when not in use, as some machines use current even when switched off.

Recording Medium (SD Card)

- **Be sure to follow the guidelines below to prevent corruption or damage to your recorded data.**
  - Do not bend or drop the recording medium, or subject it to strong pressure, jolts or vibrations.
  - Do not splash the recording medium with water.
  - Do not use, replace, or store the recording medium in locations that are exposed to strong static electricity or electrical noise.
  - Do not turn off the camera power or remove the battery or AC adapter during shooting, playback, or when otherwise accessing the recording medium.
  - Do not bring the recording medium near objects that have a strong magnetic field or that emit strong electromagnetic waves.
  - Do not store the recording medium in locations with high temperature or high humidity.
  - Do not touch the metal parts.

LCD Monitor

- **To prevent damage to the LCD monitor, DO NOT**
  ... push it strongly or apply any shocks.
  ... place the camera with LCD monitor on the bottom.
- **To prolong service life**
  ... avoid rubbing it with coarse cloth.

Main Unit

- **For safety, DO NOT**
  ... open the camera's chassis.
  ... disassemble or modify the unit.
  ... allow inflammables, water or metallic objects to enter the unit.
  ... remove the battery pack or disconnect the power supply while the power is on.
  ... leave the battery pack attached when the camera is not in use.
  ... place naked flame sources, such as lighted candles, on the apparatus.
  ... expose the apparatus to dripping or splashing.
  ... leave dust or metal objects adhered to the power plug or an AC wall outlet.

FURTHER INFORMATION

... insert any objects in the camera.
- **Avoid using the unit**
... in places subject to excessive humidity or dust.
... in places subject to soot or steam such as near a cooking stove.
... in places subject to excessive shock or vibration.
... near a television set.
... near appliances generating strong magnetic or electric fields (speakers, broadcasting antennas, etc.).
... in places subject to extremely high (over 40°C or 104°F) or extremely low (under 0°C or 32°F) temperatures.
... in places where air pressure is low (more than 3000 m (9843 ft) above the sea level).
- **DO NOT leave the unit**
... in places of over 50°C (122°F).
... in places where humidity is extremely low (below 35 %) or extremely high (above 80 %).
... in direct sunlight.
... in a closed car in summer.
... near a heater.
... in high places such as on a TV. Leaving the unit in high places while a cable is connected may result in a malfunction if the cable is caught and the unit falls onto the floor.
- **To protect the unit, DO NOT**
... allow it to become wet.
... drop the unit or strike it against hard objects.
... subject it to shock or excessive vibration during transportation.
... keep the lens directed at extremely bright objects for long periods.
... expose the lens to direct sunlight.
... swing it excessively when using the hand strap.
... swing the soft camera case excessively when the camera is inside it.
... place the camera in dusty or sandy areas, such as on a beach.

- **To prevent the unit from dropping,**
  - Fasten the grip belt securely.
  - When using the camera with a tripod, attach the camera to the tripod securely.
  If the camera drops, you may be injured and the camera may be damaged.
  When a child uses the unit, there must be parental guidance.

Declaration of Conformity
Model Number : GZ-X900U
Trade Name : JVC
Responsible party : JVC AMERICAS CORP.
Address : 1700 Valley Road Wayne, N. J. 07470
Telephone Number : 973-317-5000

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not approved by JVC could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FURTHER INFORMATION

Terms

MEMO